

Attorney Docket No. P11303-US1  
Customer Number: 27045

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

RECEIVED  
CENTRAL FAX CENTER

Applicants: Andrew Sharp

§  
§  
§  
§  
§  
§

Group Art Unit: 2684

OCT 12 2005

Serial No: 09/493,487

Examiner: Nguyen, Tu X

Filed: January 28, 2000

For: COMMUNICATION SYSTEM, METHODS OF MANAGING A COMMUNICATION  
SYSTEM AND MOBILE USER EQUIPMENT

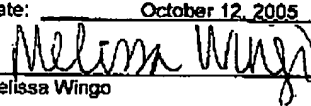
**Via Facsimile 571-273-8300**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313.1450

**CERTIFICATE OF MAILING OR TRANSMISSION**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the U.S. Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450, or being facsimile transmitted to the USPTO on the date indicated below.

Date: October 12, 2005

  
Melissa Wingo

Dear Sir:

**REPLY BRIEF UNDER C.F.R. § 1.192(b)**

This Reply Brief is submitted in response to the Examiner's Answer, mailed August 12, 2005, regarding the decision of the Primary Examiner set forth in the Official Action dated December 15, 2004 (Paper No. 25), finally rejecting claims 1-38, 40 and 41, which are all of the pending claims in this application.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §41.20(b)(2) that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1379.

Attorney Docket No. P11303-US1  
Customer Number: 27045

**I. Real Party in Interest**

The real party in interest is Telefonaktiebolaget LM Ericsson, a Swedish corporation, with its principal office at SE-164 83 Stockholm, Sweden.

**II. Related Appeals and Interferences**

To the best of the knowledge of the undersigned, there are no related appeals and no interferences regarding the above application.

**III. Status of Claims.**

Claims 1-38, 40 and 41 are pending in the present application, which are finally rejected, and form the basis for this Appeal. Claims 1-38, 40 and 41, including all amendments to the claims are attached in the Claims Appendix.

**IV. Status of Amendments.**

An Amendment was filed on February 15, 2005 in response to the Final Office Action dated December 15, 2004. The Examiner did not state in the Advisory Action dated March 11, 2005, whether or not the amendments would or would not be entered.

The claims set out in the Claims Appendix include all filed amendments.

**V. Summary of Claimed Subject Matter.**

The Applicant's claimed invention discloses a method and system for handing over communications between different access systems of a telecommunication system. A core communication system with a first access system, such as GSM, may be overlaid with another access system such as UMTS. Also, the communication system may utilize GSM in less populated areas and both GSM and UMTS in areas that require both, such as cities where subscribers use advanced phones. (page 2, lines 8-18) As noted in the application, future communication systems will allow mobile users the ability to perform a greater number of communications simultaneously. Examples of the simultaneous communications include voice calls, faxes, data/file transfer, e-mail, graphics, etc. (page 2, lines 20-33 to page 3, lines 1-4). The invention provides for determining whether to hand over from one system that is handling a first (higher)

Attorney Docket No. P11303-US1  
Customer Number: 27045

number of simultaneous communications to another access system that is capable of handling a second (lower) number of simultaneous communications (handing over communications from a UMTS access system to a GSM system a lesser number of calls that are currently being handled by the UMTS system) (page 7, lines 25-30). The invention further provides for determining which calls to handover to the second access system.

A more specific summary of the Applicant's invention is provided below and includes specification references for the claim elements. As noted in the Appeal Brief, the specification references are provided solely to comply with the USPTO's new regulations regarding appeal briefs. The use of such references should not be interpreted to limit the scope of the claims to such references nor to limit the scope of the claimed invention in any manner.

| Claim Element  | Specification Reference  |
|--|--|
| 1. A communication system comprising:  |  |
| a Universal Mobile Telecommunications System (UMTS) wherein the UMTS network is capable of handling a first number of simultaneous communications between a mobile user equipment,   | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| a Global System for a Mobile Communication System (GSM) networks, wherein the GSM network is capable of handling a second number of simultaneous communications between the mobile user equipment and the GSM network, and | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| wherein at least one of the mobile user equipment and the communication system contain   | Throughout the specification, including page 7, line 32 to page 8, line 1;   |
| at least one means for evaluating if a handover between the UMTS material and GSM material should be effectuated and   | Throughout the specification, including page 5, lines 1-11; page 6, lines 17-22; page 19, line 27 to page 20, line 1; page 23, lines 9-10. |
| at least one means for selecting, in the case that the handover is necessary, which communication or communications are handed over and  | Throughout the specification, including page 6, lines 24-29, page 23, lines 19-21.   |
| at least one means for executing the at least one decision.  | Throughout the specification, including page 8, lines 12 to 24.  |

Attorney Docket No. P11303-US1  
Customer Number: 27045

| Claim Element   | Specification Reference  |
|---|--|
| 15. Method for managing a communication system, with at least two different access networks,  | Throughout the specification, including page 8, lines 8 to 29; Figs. 1-11.   |
| wherein a first access network is capable of handling a first number of simultaneous communications between a mobile user equipment and the first access network,   | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| and wherein a second access network is capable of handling a second number of simultaneous communications between the mobile user equipment and the second access network, said method comprising the steps of: | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| evaluating if a handover from the first access network to the second access network should be effected; and   | Throughout the specification, including page 5, lines 1-11; page 6, lines 17-22; page 19, line 27 to page 20, line 1; page 23, lines 9-10. |
| selecting, in the case that the handover is necessary, which communication or communications are handed over.   | Throughout the specification, including page 6, lines 24-29, page 23, lines 19-21.   |

| Claim Element  | Specification Reference  |
|--|--|
| 40. A system for managing a communication system, with at least two different access networks, wherein a first access network is capable of handling a first number of simultaneous communications between a mobile user equipment and the first access network, | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| and wherein a second access network is capable of handling a simultaneous second number of communications between the mobile user equipment and the second access network, said system comprising:   | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| means for evaluating if a handover from the first access network to the second access network should be effected; and  | Throughout the specification, including page 5, lines 1-11; page 6, lines 17-22; page 19, line 27 to page 20, line 1; page 23, lines 9-10. |
| means for selecting, in the case that the handover is necessary, which communication or communications are handed over.  | Throughout the specification, including page 6, lines 24-29, page 23, lines 19-21.   |

Attorney Docket No. P11303-US1  
Customer Number: 27045

| Claim Element  | Specification Reference  |
|--|--|
| 41. A communication system comprising:   |  |
| a mobile user equipment,   | Throughout the specification, including page 7, line 32 to page 8, line 1.   |
| a Universal Mobile Telecommunications System (UMTS) wherein the UMTS network is capable of handling a first plurality of simultaneous calls between a mobile user equipment,   | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| a Global System for a Mobile Communication System (GSM) networks, wherein the GSM network is capable of handling a second plurality of simultaneous calls between the mobile user equipment and the GSM network, and | Throughout the specification, including page 5, line 1 to page 6, line 7; page 17, lines 10-14.  |
| wherein at least one of the mobile user equipment and the communication system contain   | Throughout the specification, including page 7, line 32 to page 8, line 1;   |
| at least one means for evaluating if a handover between the UMTS material and GSM material should be effectuated and   | Throughout the specification, including page 5, lines 1-11; page 6, lines 17-22; page 19, line 27 to page 20, line 1; page 23, lines 9-10. |
| at least one means for selecting, in the case that the handover is necessary, which call or call from the first plurality of call are to be handed over.   | Throughout the specification, including page 6, lines 24-29, page 23, lines 19-21.   |

## VI. Grounds of Rejection that were Reviewed on Appeal.

### a. Issue 1

The first issue presented for this Reply is whether claims 1-38 and 40-41 are properly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,377,804 to Lintulampi (herein "Lintulampi '804") in view of U.S. Publication 2001/0046863 to Rinne, et al. (herein "Rinne '863").

### b. Issue 2

The second issue presented for this appeal is whether claims 29-30 are properly rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,377,804 to Lintulampi (herein "Lintulampi '804") in view of U.S. Patent No.

Attorney Docket No. P11303-US1  
Customer Number: 27045

6,324,399 issued to Salmivalli (herein "Salmivalli"). The Applicant appreciates the response of the Examiner and the submission of the supporting reference, Salmivalli.

## VII. Argument

A. Claims 1-38 and 40-41 are not unpatentable over Lintulampi '804 and Rinne '863 under 35 U.S.C. § 103(a):

The Response indicated that the Applicant's previous argument argued the patentability of claims 1, 15 and 40. Claim 41 is analogous to claims 1, 15 and 40 and contains similar limitations and the Applicant respectfully asserts that claim 41 is also distinguished from Lintulampi '804 and Rinne '863.

The point of contention argued by the Applicant is that "communications" and "connections" are terms with different definitions and are used differently. As recited in the Final Office Action (Paper 25), the Lintulampi '804 reference lacked the limitation of "simultaneous communication." Rinne is cited for providing this missing limitation.

The principle function of the Applicant's invention is related to simultaneous communications between connections and the ability to determine which one of the simultaneous communications may be handed over to another access system, for instance, communications that are ongoing in a UMTS access system may be handed over to a GSM access system. It is well known that a UMTS access system may carry multiple simultaneous communications between a core network of a communication system and a Mobile User Equipment (MUE) whereas a GSM access system may carry but one communication (typically voice) between a MUE and the core network.

Though the use of the term "communications" was previously argued by the Applicant as being defined by the inventor, the widely accepted definitions of "communications" and "connections" are also different without the benefit of creative lexicography. For instance, dictionary (Merriam-Webster Online; see attachments) definitions of communication and connection indicate the difference of the two words:

communication: 1) "an act or instance of transmitting;" and

connection: 1) "the act of connecting: the state of being connected: as a causal or logical relation or sequence", or in more common usage "2a) something that

Attorney Docket No. P11303-US1  
Customer Number: 27045

connects : a link". Essentially, in the parlance of the telecommunication industry, "communications" is a flow of voice or data through a connection.

Also, Newton's Telecom Dictionary provides further insight to these terms. Though communication or communications is not directly defined in Newton's, the term Communication Channel provides a clue to how communication is understood in the Telecom industry. The definition is, "A two way path for transmitting voice and/or data signals." So the Channel (path) is essentially a carrier of voice signals (or, carrier of communications). Newton's definition for Connection is "A path between telephones that allows the transmission of speech and other signals."

In addition to the dictionary definitions, the Rinne reference also appears to support the notion that the terms "connections" and "communications" are different terms as is evidenced in various statements throughout Rinne's application. For instance, Rinne states "...data communications within the communications connection..." (abstract); "...establish a communications connection between the system and the terminal..." (para 0033); and "...shall have a logical communications connection with both the radio network controller...". If, in fact, the two words communication(s) (communications being the plural of communication) and connection were equivalent, then when one substitutes communication for connection, or vice versa, the phrase would be either "communications communication" or, "connections connection." The Applicant respectfully asserts that "communication" and "connection" do not correspond and the Applicant's characterization of communication being that of faxes, emails, voice calls, etc., is different from the characterization of communication and connection in the Response to Argument.

As noted above, the Response to Argument draws a correspondence between the terms "simultaneous connections" and "simultaneous communications." Paragraphs 102 and 012 of the Rinne reference are cited as disclosing the correspondence. The Applicant has reviewed the cited portions and finds no reference to simultaneous communications as the term is commonly used. Paragraph 012 discloses a macro-diversity technique where user data may be received by a terminal from at least two base stations and terminal user data is being transmitted to two base stations. The purpose is to provide an additional path so fade-outs and disturbances can be

Attorney Docket No. P11303-US1  
Customer Number: 27045

minimized. Paragraph 102 describes the macro-diversity technique as used in a CDMA network. This also relates to more than one connection, in fact, multiple connections.

Since "communications" and "connections" are two different terms, as described above, both by widely accepted dictionary definition and also by inventor definition; "simultaneous connections" as used by Rinne is not the same as, and does not correspond to "simultaneous communications" as used by the Applicant. As noted in the Final Office Action (Paper 25), Lintulampi fails to disclose "simultaneous communications." This being the case, neither the Lintulampi or Rinne references individually or in combination, teach or suggest the limitation "simultaneous communications" and the Applicant respectfully requests the withdrawal of the rejection of claim 1 and the claims depending therefrom.

Claims 15, 40 and 41 are analogous to claim 1 and contain similar limitations. Therefore, the Applicant also respectfully requests the withdrawal of the rejections of these claims and the respectively dependent claims.

**B. Claims 29-30 are not unpatentable over Lintulampi '804 and the Examiner's use of Official Notice (Salmivalli has replaced Official Notice):**

In the Final Office Action (Paper no. 25), the Examiner rejected claims 29-30 in view of Lintulampi and official notice. In the Applicant's response, dated September 7, 2004, the Applicant traversed the use of "official notice" and requested that the examiner "provide such supporting facts and evidence in the form of an affidavit, so that if necessary, the Applicant may explain the reference." The Examiner supplied such support, U.S. Patent no. 6,324,399 to Salmivalli, in the Examiner's Response and the Applicant appreciates the action.

As noted above, neither Lintulampi nor Rinne disclose "simultaneous communications". The Applicant respectfully submits that the reference Salmivalli is lacking in the same limitation.

In order to establish a *prima facie* case of obviousness, the cited references must collectively disclose all of the elements of the rejected claims. Since none of the




Attorney Docket No. P11303-US1  
Customer Number: 27045

references disclose simultaneous limitations, the Applicant respectfully requests the withdrawal of the rejection of claims 29 and 30.

For all of the foregoing reasons, it is respectfully submitted that claims 1-38 and 40-41 be allowed.

Respectfully submitted,

  
Sidney L. Weatherford  
Registration No. 45,602

Date: October 12, 2005

Ericsson Inc.  
6300 Legacy Drive, M/S EV-A1.161  
Plano, Texas 75024

(972) 583-8656  
Sidney.weatherford@ericsson.com

Attorney Docket No. P11303-US1  
Customer Number: 27045

### **VIII. Claims Appendix.**

1. (Previously Presented) A communication system comprising:
  - a Universal Mobile Telecommunications System (UMTS) wherein the UMTS network is capable of handling a first number of simultaneous communications between a mobile user equipment ,
  - a Global System for a Mobile Communication System (GSM) networks, wherein the GSM network is capable of handling a second number of simultaneous communications between the mobile user equipment and the GSM network, and
  - wherein at least one of the mobile user equipment and the communication system contain
    - at least one means for evaluating if a handover between the UMTS material and GSM material should be effectuated and
    - at least one means for selecting, in the case that the handover is necessary, which communication or communications are handed over and
    - at least one means for executing the at least one decision.
2. (Previously Presented) The communication system according to claim 1, further comprising at least one means for determining a capability of at least one of the UMTS and GSM networks.
3. (Previously Presented) The communication system according to claim 2, wherein the means for determining the capability is located in a core network.
4. (Previously Presented) The communication system according to claim 1, wherein at least one of the UMTS and GSM network contains the means for executing the at least one decision.
5. (Previously Presented) The communication system according to claim 1, further comprising a core network that contains the means for executing the at least one decision.

Attorney Docket No. P11303-US1  
Customer Number: 27045

6. (Previously Presented) The communication system according to claim 1, wherein the mobile user equipment contains the means for executing the at least one decision.

7. (Previously Presented) The communication system according to claim 1, wherein at least one of the UMTS and GSM network contains the means for making at least one decision.

8. (Previously Presented) The communication system according to claim 1, further comprising at least one core network that contains the means for making at least one decision.

9. (Previously Presented) The communication system according to claim 1, wherein the mobile user equipment contains the means for making at least one decision.

10. (Previously Presented) The communication system according to claim 1, further comprising means for making at least one decision whether an intersystem handover is necessary.

11. (Previously Presented) The communication system according to claim 10, wherein the means for making at least one decision whether an intersystem handover is necessary is a device.

12. (Previously Presented) The communication system according to claim 11, wherein the device is located in at least one of the UMTS and GSM network.

13. (Previously Presented) The communication system according to claim 11, wherein the device is located in a radio network controller.

Attorney Docket No. P11303-US1  
Customer Number: 27045

14. (Previously Presented) The communication system according to claim 11, wherein the device is located in a core network.

15. (Previously Presented) Method for managing a communication system, with at least two different access networks, wherein a first access network is capable of handling a first number of simultaneous communications between a mobile user equipment and the first access network, and wherein a second access network is capable of handling a second number of simultaneous communications between the mobile user equipment and the second access network, said method comprising the steps of:

evaluating if a handover from the first access network to the second access network should be effected; and

selecting, in the case that the handover is necessary, which communication or communications are handed over.

16. (Previously Presented) The method according to claim 15, wherein an access network sends a handover query to the mobile user equipment.

17. (Previously Presented) The method according to claim 16, wherein the access network signals a core network, before the access network sends the handover query to the mobile user equipment.

18. (Previously Presented) The method according to claim 17, wherein the core network adds information about a communication or communications which can be supported.

19. (Previously Presented) The method according to claim 15, further comprising the step of enabling a mobile user to decide whether the communication or the communications should be handed over to the second access network.

Attorney Docket No. P11303-US1  
Customer Number: 27045

20. (Previously Presented) The method according to claim 15, wherein the mobile user equipment informs the access network about the communication or the communications which should be handed over to the second access network.

21. (Previously Presented) The method according to claim 15, wherein the mobile user equipment receives a handover query for handover towards the second access network, then the mobile user equipment disconnects all connections that cannot be kept in the second access network.

22. (Previously Presented) The method according to claim 15, wherein the core network decides which communication or communications should be handed over to the second access network.

23. (Previously Presented) The method according to claim 15, wherein all communications which cannot be kept in the second access network are disconnected.

24. (Previously Presented) The method according to claim 15, wherein at least one decision about a communications which are handed over in the case that the mobile user equipment would move between the first access network and the second access network depends on at least one presetting.

25. (Previously Presented) The method according to claim 24, wherein the presettings are located within a mobile user equipment.

26. (Previously Presented) The method according to claim 25, wherein the presettings are transferred to the core network within at least one of an initial user equipment message and in a setup message.

27. (Previously Presented) The method according to claim 25, wherein a message which depends on the presettings is sent to the core network after the core network has sent a request to the mobile user equipment.

Attorney Docket No. P11303-US1  
Customer Number: 27045

28. (Previously Presented) The method according to claim 24, wherein the presettings are stored within at least one of an access network and a core network.

29. (Previously Presented) The method according to claim 28, wherein the presettings can be different for each mobile user.

30. (Previously Presented) The method according to claim 28, wherein the presettings are identical for all users.

31. (Previously Presented) The method according to claim 24, wherein the presettings can be different for different categories of communications.

32. (Previously Presented) The method according to claim 24, wherein the presettings can be different for different priorities for different communications.

33. (Previously Presented) The method according to claim 24, wherein the presettings are defined and modified by an operator.

34. (Previously Presented) The method according to claim 24, wherein the presettings are defined and modified by a mobile user.

35. (Previously Presented) The method according to claim 15, wherein at least one of the communications is put on hold before the handover and kept on hold after the handover.

36. (Previously Presented) The method according to claim 15, wherein the mobile user equipment puts the at least one communication on hold.

37. (Previously Presented) The method according to claim 15, wherein the core network puts the at least one communication on hold.

Attorney Docket No. P11303-US1  
Customer Number: 27045

38. (Previously Presented) The method according to claim 15, wherein the mobile user equipment contains an indicator that an intersystem handover is needed.

39. (Canceled)

40. (Previously Presented) A system for managing a communication system, with at least two different access networks, wherein a first access network is capable of handling a first number of simultaneous communications between a mobile user equipment and the first access network, and wherein a second access network is capable of handling a simultaneous second number of communications between the mobile user equipment and the second access network, said system comprising:

means for evaluating if a handover from the first access network to the second access network should be effected; and

means for selecting, in the case that the handover is necessary, which communication or communications are handed over.

41. (Previously Presented) A communication system comprising:  
a mobile user equipment,  
a Universal Mobile Telecommunications System (UMTS) wherein the UMTS network is capable of handling a first plurality of simultaneous calls between a mobile user equipment,

a Global System for a Mobile Communication System (GSM) networks, wherein the GSM network is capable of handling a second plurality of simultaneous calls between the mobile user equipment and the GSM network, and

wherein at least one of the mobile user equipment and the communication system contain

at least one means for evaluating if a handover between the UMTS material and GSM material should be effectuated and

Attorney Docket No. P11303-US1  
Customer Number: 27045

at least one means for selecting, in the case that the handover is necessary, which call or call from the first plurality of call are to be handed over.



Attorney Docket No. P11303-US1  
Customer Number: 27045

**IX. Evidence Appendix.**  
**NONE**

Attorney Docket No. P11303-US1  
Customer Number: 27046

**X. Related Proceedings Appendix.**

NONE

# NEWTON's TELECOM DICTIONARY

The Official Dictionary of Telecommunications  
Networking and Internet

## STAY INFORMED

To be alerted by email to updates and corrections  
go to **[www.cmpbooks.com/newton](http://www.cmpbooks.com/newton)**

## Common Control Equipment / Communications Act Of 1934

term (or control equipment) is responsible for routing calls through the network. The control equipment is connected with a given call only for the period required to accomplish the routing function. In other words, the common control equipment is associated with a given call only during the periods required to accomplish the control functions. All crossbar and electronic switching systems have common control.

**Common Control Equipment** An automatic switching system that makes use of common equipment to establish a connection. Once the connection is made, the common control equipment is available to establish another connection.

**Common Control Switching Arrangement CCSA.** An AT&T offering for very big companies. Those big companies can create their own private networks and dial anywhere on them by dialing a standard seven digit number, similar to a local phone number. The corporate subscriber rents private, dedicated lines and then shares central office switches. CCSA uses special CCSA software at the central office.

**Common Costs** Costs of the provision of some group of services that cannot be directly attributed to any one of those services.

**Common Equipment** In telephone systems Common Equipment are items that are used by several or all phones for processing calls. On a key system, the device that permits a light on any instrument to flash on and off may be Common Equipment when used to control all lights on all instruments.

**Common Gateway Interface CGI.**

**Common Intermediate Format** A videophone ISDN standard which is part of the ITU-T's H.261. It produces a color image of 352 by 288 pixels. The format uses two B channels, with voice taking 32 Kbps and the rest for video.

**Common Language Code** Codes used to ensure uniform abbreviation of equipment and facility names, place names, etc.

**Common Language Location Identification Code CLLI.** The CLLI code is an 11 character mnemonic code used to uniquely identify a location in the United States, Canada or other countries. These codes are known as CLLI or 'Location Codes' and may be used in either a manual or mechanized record keeping system. For a bigger explanation, see CLLI Code. See also CFA.

**Common Mail Calls** New APIs (Application Programming Interfaces) from Microsoft which allow you to move information around your various mail services — the ones on your LAN, on your wireless pager, etc.

**Common Mode** The potential or voltage that exists between neutral and ground. Electronic equipment requires this to be as close to 0 volts as possible or not to exceed 1/2 volt. For AC power systems, the term common mode may refer to either noise or surge voltage disturbances. Common mode disturbances are those that occur between the power neutral (white wire) and the grounding conductor (green wire). Ideally, no common mode disturbances should exist since the neutral and grounding wires are always connected at the service distribution panel in most countries. However, unwanted common mode disturbances exist as a result of noise injection into the neutral or grounding wires, wiring faults, or overloaded power circuits. Modern computers are quite immune from common mode noise. Common mode noise is frequently mistakenly confused with inter-system ground noise, a distinct problem which frequently causes computer damage and data errors. See Common Mode Interference.

**Common Mode Interference** 1. Interference that appears between signal leads, or the terminals of a measuring circuit and ground.

2. A form of coherent interference that affects two or more elements of a network in a similar manner (i.e., highly coupled) as distinct from locally generated noise or interference that is statistically independent between pairs of network elements.

**Common Mode Rejection Ratio CMRR.** The ratio of the common mode interference voltage at the input of a circuit to the corresponding interference voltage at the output.

**Common Mode Transmission** A transmission scheme where voltages appear equal in magnitude and phase across a conductor pair with respect to ground. May also be referred to as longitudinal mode.

**Common Mode Voltage** 1. The voltage common to both input terminals of a device.

2. In a differential amplifier, the unwanted part of the voltage between each input connection point and ground that is added to the voltage of each original signal.

**Common Object Request Broker Architecture** See CORBA.

**Common Open Policy Server** See COPS.

**Common Path Distortion** Common path distortion is the interference of

return-path signaling caused by the forward path.

**Common Peer Group** An ATM term. The lowest level peer group in which a set of nodes is represented. A node is represented in a peer group either directly or through one of its ancestors.

**Common Return** A return path that is common to two or more circuits and that serves to return currents to their source or to ground.

**Common Return Offset** The dc common return potential difference of a line.

**Common Trunk** In telephone systems having a grading arrangement, a trunk accessible to all groups of the grading.

**Common User Circuit** A circuit designated to furnish a communication service to a number of users.

**Common User Network** A system of circuits or channels allocated to furnish communication paths between switching centers to provide communication service on a common basis to all connected stations or subscribers.

**Commonality** 1. A quality that applies to material or systems: (a) possessing like and interchangeable characteristics enabling each to be utilized, or operated and maintained by personnel trained on the others without additional specialized training; (b) having interchangeable repair parts and/or components; (c) applying to consumable items interchangeably equivalent without adjustment.

2. A term applied to equipment or systems that have the quality of one entity possessing like and interchangeable parts with another equipment or system entity.

**Communicating Applications** A General Magic term. An application whose design presupposes the user's desire to send and receive messages. For a Personal Intelligent Communicator to be effective, it needs to be equipped with a suite of communicating applications. All Magic Cap applications are built to communicate.

**Communicating Applications Platform** A General Magic term. The Cap in Magic Cap. Software on which Personal Intelligent Communicators are based. It is designed to make it easy for developers to create communicating applications and services. Magic Cap can run on dedicated devices as well as other computer operating systems.

**Communicating Applications Specification** A facsimile specification. See CAS 2.0.

**Communicating Objects** A term created in the fall of 1992 by Intel's VP Tony Bowcutt for a new Intel division which specializes in making PC printed cards and software drivers and developer tools for those cards. Those cards are designed to be the building blocks of what Intel calls multimedia applications — but what are more properly called PC-based voice and call processing telecom developer building blocks. One of the first cards Intel introduced was an ISDN Success card which converts PCs into ISDN telephones, also called voice and data workstations.

**Communicating Word Processor** A dedicated word processor that includes software for sending word processed files over phone lines. Communicating word processors have now largely been replaced by PCs (Personal Computers) running word processing programs and asynchronous communications software programs.

**Communication Channel** A two-way path for transmitting voice and/or data signals. See also Circuit.

**Communication Controller** Another name for a Front End Processor, a specialized computer which was common in 3270 data communications networks. The FEP acted as a data communications "traffic cop," removing the communications traffic routing and controlling burden from the mainframe computer which lay behind the FEP. In short, the FEP designates a device placed between the network and an input/output channel of a processing system (i.e. the computer).

**Communication Endpoint** An ATM term. An object associated with a set of attributes which are specified at the communication creation time.

**Communication Holder** A fancy name for a pocket on a piece of clothing that holds a cell phone. I first saw the word on a Nike Sno tech Jacket. The jacket also contains a small channel through which you can thread the wires to a compact headset you can wear. This way you can speak on the phone without touching the phone.

**Communication Server** A dedicated, standalone system that manages communications activities for other computers.

**Communication Workers Of America CWA.** A national union of telephone industry employees, currently very worried about its future membership growth given the phone industry's propensity to let its surplus workers go.

**Communications Act Of 1934** Federal legislation which established national telecommunications goals and created the Federal Communications Commission to regulate

## Conferencing / Connection Orientated Protocol

some special Conferencing Equipment. See Conference Bridge.

**Conferencing** Several parties can be added to a phone conversation through Conferencing.

**Confidence Interval** A confidence interval is the range of values within which the true value is assured to lie. Confidence level must be two figures.

**Confidencer** A noise-cancelling microphone for use on a telephone in noisy places. A confidencer is not an easy device to use.

**Confidential Reception** The ability to receive a facsimile transmission directly into memory which can be printed out or viewed at a later time.

**Confidential Transmission** A facsimile message that is sent confidentially into memory or a private mailbox, to be retrieved by the receiver at a later time. It's usually retrieved by using a confidential passcode or password.

**Configuration** 1. The hardware and software arrangements that define a computer or telecommunications system and thus determine what the system will do and how well it will do it. This information can be entered in the CMOS and EEPROM setup programs.

2. An ATM term. The phase in which the LE Client discovers the LE Service.

**Configuration Databases** Raim/IBM words for those databases which represent unique user specifications relating to system and phone features. These databases can be entered on-site and are not part of the generic software which runs the phone system.

**Configuration File** An unformatted ASCII file that stores initialization information for an application.

**Configuration Management** One of five categories of network management defined by the ISO. Configuration management is the process of adding, deleting and modifying connections, addresses and topologies within a network. See ISO.

**Configuration Manager** 1. A SCSI system service which manages configuration information and controls system startup.

2. An Intel Plug'n Play term. A driver, such as the ISA Configuration Utility, that configures devices and informs other device drivers of the resource requirements of all devices installed in a computer system. The Windows 95 Resource Kit defined configuration manager as the central component of a Plug and Play system that drives the process of locating devices, setting up their nodes in the hardware tree, and running the resource allocation process. Each of the three phases of configuration management—boot time (BIOS), real mode, and protected mode—has its own configuration manager.

**Configuration Registry** A database repository for information about a computer's configuration.

**Confirming Design Layout Report Date** COLRD. The date a common carrier accepts the facility design proposed by the Telco.

**Conformance Test** A test performed by an independent body to determine if a particular piece of equipment or system satisfies the criteria of a particular standard, sometimes a contract to buy the equipment.

**Conforming End Office** Central office with the ability to provide originating and terminating feature group D local access and transport area access service.

**Congestion** A condition that arises when a communications link, path, or network experiences an offered load (i.e., the amount of traffic offered) that exceeds its capacity. For example, consider a T-1 link connected to the outgoing port of a switch. If the switch attempts to offer a traffic load in excess of 1.544 Mbps, a congestion condition arises, and can be resolved in one of several ways. First, the switch can simply discard the excess data. Discard Eligible (DE) data applications generally will not suffer beyond their expectations unless the congestion condition becomes extreme. Second, the switch can buffer the excess data until such time as the congestion condition eases; this process is known as "congestion control," and is limited to the maximum capacity of the buffers involved. If the congestion condition persists and the switch discards no data, eventually the congestion backs up all the way to the user terminal, and the application ceases to function in an acceptable manner. See also Utilization.

**Congestion Control** The process whereby packets are discarded to clear buffer congestion in a packet-switched network.

**Congestion Management** The ability of a network to effectively deal with heavy traffic volumes; solutions include traffic scheduling and enabling output ports to control the traffic flow. See BECN and Ethernet Switch.

**Connect Time** Measure of computer and telecommunications system usage. The interval during which the user was on-line for a session.

**Connectable Mode** In Bluetooth terminology, connectable mode means a device

that responds in paging (an attempt to establish a communication link) is said to be in connectable mode. The opposite of connectable mode is non-connectable mode.

**Connected** 1. On line.

2. A voice recognition term for words spoken clearly in succession without pauses. For recognition to occur, words or utterances must be separated by at least 50 milliseconds (1/20th of a second). Generally refers to digit recognition and sometimes used to describe fast discrete recognition.

**Connected State** A state in which a device is actively participating in a call. This state includes logical participation in a call as well as physical participation (i.e., a Connected device cannot be on Hold).

**Connected Time** The length of time a path between two objects is active.

**Connected User** A Windows NT term. A user accessing a computer or a resource across the network.

**Connecting Arrangement** The manner in which the facilities of a common carrier (phone company) and the customer are interconnected.

**Connecting Block** A plastic block containing metal wiring terminals to establish connections from one group of wires to another. Usually each wire can be connected to several other wires in a bus or common arrangement. A 66-type block is the most common type of connecting block. It was invented by Western Electric. Northern Telecom has one called a Bix block. There are others. These two are probably the most common. A connecting block is also called a terminal block, a punch-down block, a quick-connect block, a cross-connect block. A connecting block will include insulation displacement connections (IDCs). In other words, with a connecting block, you don't have to remove the plastic shielding from around your wire conductor before you "punch it down."

**Connecting Hardware** A device providing mechanical cable terminations.

**Connection** 1. A path between telephones that allows the transmission of speech and other signals.

2. An electrical continuity of circuit between two wires or two units, in a piece of apparatus.

3. An SCSI term which means a TDM data path between two Resources or two Groups. It connects the inputs and outputs of the two Resources, and may be unidirectional (simplex) if either of the Resources has only an input or an output. Otherwise it is bi-directional (dual simplex). It usually has a bandwidth that is a multiple of a DSO (64kbit) channel. Inter-group connections are made between the Primary Resource of each Resource Group.

4. An ATM connection consists of concatenation of ATM Layer links in order to provide an end-to-end information transfer capability to access points.

**Connection Master** Software from Mitel, which brings the Connection Control Standard to an even higher level for the MVIP developer. Connection Master interacts with circuit switches on multiple MVIP cards to make connections and resolve switching contention. It also interfaces between applications and makes connections in such a way that simple one-chassis applications become networked applications. Connection Master fully supports MC-MVIP, Multi-Chassis MVIP. See also MVIP.

**Connection Number** A number assigned to a workstation that attaches to a server; it may be a different number each time the workstation attaches. Connection numbers are also assigned to print servers, as well as other applications and processes that use the server connections.

**Connection Oriented** The model of interconnection in which communication proceeds through three well-defined phases: connection establishment (call setup), information transfer (call maintenance), connection release (call teardown). Connection-oriented services ensure that all data follow the same path through the network. That is to say that all data travel across the same circuits, and through the same switches and other devices. Examples include ordinary circuit-switched voice and data calls, ISDN calls, X.25, TCP, Frame Relay, and ATM. See Connection Service and Connectionless Mode Transmission.

**Connection Oriented Network Service** CONS. An OSI protocol for packet-switched networks that exchange information over a virtual circuit (a logical circuit where connection methods and protocols are pre-established); address information is exchanged only once. CONS must detect a virtual circuit between the sending and receiving systems before it can send packets.

**Connection Oriented Operation** A communications protocol in which a logical connection is established between communicating devices. Connection-oriented service is also referred to as virtual-circuit service.

**Connection Orientated Protocol** A protocol in which a connection is established prior to initiation of data transmission, maintained during transmission, and



# Merriam-Webster OnLine

Merriam-Webster FOR KIDS

Encyclopaedia BRITANNICA

Merriam-Webster ONLINE

Merriam-Webster COLLEGIATE™

Merriam-Webster UNABRIDGED



**Lower your electricity bill in minutes!**

**Compare electricity companies side by side.**

**It's FREE! Watch and save - no interruption in service!**



**ElectricityTexas.com**

HOME  
PREMIUM SERVICES

M-W Collegiate.com  
M-W Unabridged.com  
Britannica.com  
Multi-User Licenses

DOWNLOADS  
WORD OF THE DAY  
WORD GAMES  
WORD FOR THE WISE  
ONLINE STORE  
HELP

Merriam-Webster Inc.  
Company Information

## Merriam-Webster Online Dictionary

One entry found for **communication**.

Main Entry: **com·mu·ni·ca·tion** ❹

Pronunciation: k&-ˈmyū-n&-ˈk&-sh&n

Function: *noun*

1 : an act or instance of transmitting

2 a : information communicated b : a verbal or written message

3 a : a process by which information is exchanged between individuals through a common system of symbols, signs, or behavior <the function of pheromones in insect *communication*>; also : exchange of information b : personal rapport <a lack of *communication* between old and young persons>

4 *plural* a : a system (as of telephones) for communicating b : a system of routes for moving troops, supplies, and vehicles c : personnel engaged in communicating

5 *plural but singular or plural in construction* a : a technique for expressing ideas effectively (as in speech) b : the technology of the transmission of information (as by print or telecommunication)

-com·mu·ni·ca·tion·al ❹ /-sh&n&l, -sh&-n&l/ *adjective*

For More Information on "communication" go to Britannica.com

Get the Top 10 Search Results for "communication"

Ads by Google

### Powerful Public Speaking

Executive Communications Coaching Bring your skills to a new level  
www.thepincusgroup.com

### Unified Communications

Every feature you could want. Great pricing. Setup is free.  
www.Onebox.com

Merriam-Webster Online

© Dictionary

○ Thesaurus

connection

Go



communicat

Ads by Google

### Palm & Pocket PC

Browse and download Merriam-Webster e-books and games for Palm and Pocket PC PDAs and Mobile Phones

Merriam-Webster Online Store

### Handheld Collegiate

Now you can take the Eleventh Edition with you anywhere as Franklin's new Speaking Electronic Handheld!

Franklin.com/estore

Merriam-Webster  
**Collegiate**  
14-day Free Trial



# Merriam-Webster OnLine

Merriam-Webster FOR KIDS

Encyclopædia BRITANNICA

Merriam-Webster ONLINE

Merriam-Webster COLLEGIATE™

Merriam-Webster UNABRIDGED

SEARCH ALL

## HOME

### PREMIUM SERVICES

M-WCollegiate.com  
M-WUnabridged.com  
Britannica.com  
Multi-User Licenses

## DOWNLOADS

WORD OF THE DAY  
WORD GAMES  
WORD FOR THE WISE  
ONLINE STORE  
HELP

Merriam-Webster Inc.  
Company Information

## Merriam-Webster Online Dictionary

Thesaurus

One entry found for connection.

Main Entry: **con·nec·tion** ❹

Pronunciation: k&-ˈnek-sh&n

Function: *noun*

**Etymology:** Latin *connexio-*, *connexio*, from *connectere*

**1** : the act of connecting : the state of being connected : as a : causal or logical relation or sequence <the *connection* between two ideas> **b** (1) : contextual relation or association <in this *connection* the word has a different meaning> (2) : relationship in fact <wanted in *connection* with a robbery> **c** : a relation of personal intimacy (as of family ties) **d** :

**COHERENCE, CONTINUITY**

**2 a** : something that connects : **LINK** <a loose *connection* in the wiring> **b** : a means of communication or transport

**3** : a person connected with another especially by marriage, kinship, or common interest <has powerful *connections*>

**4** : a political, social, professional, or commercial relationship: as **a** : **POSITION, JOB** **b** : an arrangement to execute orders or advance interests of another <a firm's foreign *connections*> **c** : a source of contraband (as illegal drugs)

**5** : a set of persons associated together: as **a** :

**DENOMINATION b : CLAN**

- **con·nec·tion·al** ❹ /-sh&l, -sh&-n&l/ *adjective*

For **More Information on "connection"** go to  
**Britannica.com**

Get the **Top 10 Search Results for "connection"**

Ads by Google

**Verizon DSL Official Site**

Get up to 768K DSL for as low as \$14.95. Check Availability Here!  
**www.verizononline.com**

Merriam-Webster Online

© Dictionary  
© Thesaurus

Go



connection

## Palm & Pocket PC

Browse and download  
Merriam-Webster  
e-books and games  
for Palm and Pocket  
PC PDAs and Mobile  
Phones

**Merriam-Webster  
Online Store**

## Handheld Collegiate

Now you can take the  
Eleventh Edition with  
you anywhere as  
Franklin's new  
Speaking Electronic  
Handheld!  
**Franklin.com/estore**

Merriam-Webster  
**Collegiate.com**  
**14-day Free Trial**

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**